

1 WHAT IS CLAIMED IS:

1. An apparatus for providing an adjustable bandwidth high pass filter, the apparatus comprising:

5 a highpass filter having an input capacity in series with a resistive ladder having a plurality of resistances coupled in series, said coupling between the capacity and the first resistor of the resistive ladder defining a first tap and successive couplings between resistances forming successive taps, the last resistance of said resistive ladder being coupled to a ground;

10 a plurality of bandwidth adjusting resistances, each first side of the bandwidth adjusting resistance coupled to the first tap; and

a plurality of switches that provide the coupling of the second side of each of the bandwidth adjusting resistances to said ground.

15 2. An apparatus as in claim 1, wherein said ground comprises an AC ground, said AC ground providing a DC bias.

3. An apparatus as in claim 1 wherein the switches further comprise semiconductor switches.

20 4. An apparatus as in claim 3 wherein the semiconductor devices further comprise MOSFETS (Metal Oxide Semiconductor Field Effect Transistors).

5. An apparatus as in claim 4 wherein the MOSFET is a N-type MOSFET.

25 6. An apparatus as in claim 4 wherein the MOSFET is a P type MOSFET.

7. An apparatus as in claim 1 wherein the apparatus further comprises:

30 a MOSFET device having a source, a gate and a drain the source coupled to the second side of one of said bandwidth adjusting resistors;

the drain of the MOSFET device coupled to said ground and said gate being coupled to a control circuit.

35 8. An apparatus as in claim 7 wherein the control circuit comprises: an amplifier output coupled to the gate of the switching device.

1
9. An apparatus as in claim 8 wherein the amplifier further comprises:
a tristate buffer amplifier; and
a pull up resistance coupled between the output of the tristate and a
5 power supply.

10. An apparatus as in claim 9 wherein the power supply is the power supply
for an integrated circuit containing the apparatus.

10 11. An apparatus as in claim 9 wherein the pull up resistance comprises a
long channel triode device.

12. An apparatus in claim 7 further comprising a capacity disposed between
the gate and source of the MOSFET switch.

15 13. An apparatus as in claim 11 wherein the drain of the long channel triode
device is coupled to a power supply voltage, the gate is coupled to the ground of the
power supply voltage and the source is coupled to the gate of the MOSFET switch.

20

25

30

35